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RemarksIndependent Claim 1

The Examiner's rejection of independent claim 1 is respectfully traversed.

No reference of record teaches or suggests placing ALL OF THE FOLLOWING on a front wheel support that is pivotal about a vertical axis to pivot the front wheel from side to side to steer a vehicle:

- 1.) a ground grooming implement;
- 2.) a vertically movable linkage for the implement; and
- 3.) a powered actuator for moving the linkage to raise and lower the implement.

The only reference of record to show an implement carried on a pivotal front wheel support is Smith, but Smith does not disclose the claimed powered actuator or its specifically recited location on the front wheel support. The Examiner implicitly recognized this deficiency in Smith by abandoning the prior rejection utilizing Smith as the primary reference.

The Examiner now uses Smith as a teaching reference to assert that the vastly different structure of Godberson could be mounted to a pivotal front wheel support. This is in error for a number of reasons.

First, while the nature of Godberson's implement 23 is not recited other than being referred to as a "cultivator implement", it is clear from Fig. 1 that implement 23 is large and heavy. The partial portion of implement 23 that is shown in Fig. 1. includes a frame 48, a horizontal deck (unnumbered) extending rearwardly from frame 48, a cross brace (unnumbered)

extending down from frame 48 to the deck, a drive system mounted on the deck comprising U-joint 46, driven shaft 47, gear box 26, and two separate drive shafts 27 out of gear box 26, namely shaft 27 extending from one side of gear box 26 and shaft 28 extending from the rear of gear box 26. The rest of implement 23 is not shown, but clearly the deck continues to the rear and to the side to mount some type of cultivating tools (not shown) that are driven by the side drive shaft 27 and rear drive shaft 28. If there is one thing that would have been obvious to one of ordinary skill in the art, it would be obvious only that this much structure and weight should NOT be attached to a pivotal front wheel support where such a large mass and its inertia must be swung or pivoted every time the vehicle turns.

Second, Godberson discloses in Fig. 1 a latch unit 42, or alternatively a latch unit ~~144~~ in Figs. 24 - 27, that locks the male and female A-shaped couplers together. This latch unit 42 or 144 is manually released by a rod 93 (see Fig. 1) or by a handle 156 (~~see Fig. 19~~) which must be positioned adjacent the operator's seat 95 at the rear of the tractor. If Godberson's implement were removed from the rear of the tractor and mounted on a pivotal front wheel support, neither the rod 93 nor the handle 156 would be positioned adjacent the operator's seat. Moreover, even if the rod 93 and the handle 156 were somehow elongated enough to extend back to the operator's seat, the pivoting motion of the front wheel support would cause the rod 93 or handle 156 to bang into the tractor or the rear wheel fenders 22 as the vehicle turns. Thus, because of the need to keep the rod 93 or the handle 156 adjacent the operator's seat, one skilled in the art would NOT find it obvious to relocate Godberson's implement away from the rear of the tractor or to place it onto a pivotal front wheel support that would cause the rod 93 or the handle 156 to swing to and fro.

Third, Godberson's lower draft arms 29 are widely spaced apart to connect to male coupler 34. Smith does not teach how to connect two such widely spaced arms 29 to a pivotal front wheel support as Smith uses essentially a single arm 29 or a pair of very closely spaced apart arms 25 connected to a narrow plate 20 located between a pair of front wheels in a double wheel truck. Smith did not figure out how to connect two widely spaced apart arms, such as the arms 29 of Godberson, to a pivotal front wheel support and certainly cannot teach Godberson how to do the same. In view of Smith's connecting only a very narrow linkage to a pivotal front wheel support, one of ordinary skill in the art would actually be deterred from trying to attach Godberson's much different linkage, including the pair of widely spaced apart arms 29, to a pivotal front wheel support.

Accordingly, claim 1 is allowable over Godberson and Smith and the Examiner's rejection based thereon should be withdrawn.

Dependent Claims 2, 3, 4, 8, 10 and 28

Claim 2 has been amended herein to remove the duplicate use of the phrase "wherein the".

Claims 3 and 4 have been amended to clarify the nature of the four bar linkage. Two bars of the four bar linkage comprise the top and bottom bars 30 in each pair of bars. The other two bars of the four bar linkage actually comprise the portions of the plate 28 and the coupler 40 that extend between their pivot connections to the top and bottom bars 30. Claims 3 and 4 as amended now avoid the implication that the four bars 30 collectively comprise the four bar linkage. The four bars 30 collectively provide only two sides of the four bar linkage.

Claim 8 has been amended, albeit in a manner different to that suggested by the Examiner, to provide proper antecedent basis for use of the term "blade" in claim 8. The Examiner's objection to claim 8 should be withdrawn.

Claim 10 has been amended to be a bit clearer, but the Examiner's rejection thereof is respectfully traversed. See the discussion below with respect to dependent claim 23 which applies equally to the rejection of claim 10.

New claim 28 more distinctly claims the nature of the actuator. Neither Godberson nor Smith disclose a powered actuator having a housing and an extensible and retractible rod that has powered motion back and forth on the housing caused by motive means in the housing, nor do they disclose carrying such components on a pivotal front wheel support.

Independent Claim 20

The Examiner's rejection of independent claim 20 is respectfully traversed. Claim 20 has been amended only for antecedent basis reasons and not to define over the Examiner's rejection thereof.

The Examiner has suggested that Godberson somehow discloses a pair of legs that straddle a wheel and points to Fig. 1 of Godberson with the cryptic comment "(Fig. 1, extending down from 22)". The Examiner appears to have misinterpreted what Godberson shows.

In Fig. 1, Godberson illustrates the rear of a tractor. Such tractors typically have two large rear wheels that are rotatably journaled on axles on each side of the frame or body of the tractor. One of these rear wheels (unnumbered) on the far side of the tractor body is shown in Fig. 1 with the fender 22 covering the top of the far side wheel also being shown. The other rear wheel on the near side of the tractor

body is NOT shown in Fig. 1. The reason the near side wheel is deleted from Fig. 1 is that Godberson wanted to illustrate the various link arms 29, 31, 32 and 33, PTO shaft 24, drive shaft 43, all of which connect to the rear end of the tractor body between the two rear wheels. This structure would have been hidden or obscured in Fig. 1 if the near side rear wheel had been shown.

Claim 20 requires a front wheel support that includes:

"a pair of downwardly extending legs that are spaced apart by more than the width of the front wheel such that the legs straddle the front wheel".

Claim 20 also requires a linkage for a coupler with the linkage having:

"at least one bar pivotally connecting each side of the male coupler to one of the downwardly extending legs of the front wheel support".

Yet, when Godberson is properly understood, it is clear that these limitations are not met. Certainly, the requirement for a pivotal front wheel support in which the legs straddle a wheel has a clear meaning. One leg must be on one side of the wheel and the other leg must be on the other side of the same wheel. The word "straddle" means "to stand or sit with a leg on each side of, bestride: straddle a horse." The American Heritage Dictionary of the English Language, Third Edition. Then, the linkage must have one bar going to one of the legs and the other bar going to the other of the legs. Since all of what Godberson shows in Fig. 1 is between the two rear wheels of the tractor, none of it can be straddling a wheel as claim 20 clearly requires.

Accordingly, claim 20 is allowable over Godberson and Smith and the Examiner's rejection based thereon should be withdrawn.

Dependent Claim 23

Claim 23 has been amended to be more specific about the selective operation of the lock as originally present in the claim in the original phrase "for selectively locking". In addition, the Examiner's rejection of dependent claim 23 is respectfully traversed.

The Examiner errs in equating a pivot stop with a pivot lock. A stop does not lock something against pivoting, but only limits the amount of pivoting in one direction, i.e. it stops the pivoting but does not prevent it. A lock on the other hand means what it says - namely something that prevents the pivoting.

Col.4, Lines 17-20 of Curtis, referenced by the Examiner to teach a lock, only disclose stop plates 73 and 74. Stop plates 73 and 74 of Curtis are neither locks nor selectively actuatable by a user, both of which are required by claim 23.

Accordingly, the Examiner's rejection of claim 23 (and of claim 10) should be withdrawn.

Independent Claim 12

Claim 12 has been amended to limit the vehicle to one that can push and grade sand in a sand trap or bunker. The characteristics of the vehicle that make this possible have now been set forth as positive limitations in subparagraph (a) of claim 12. This is not new matter in view of the original disclosure of the above-identified application in-

cluding, but not limited to, the reference in the original disclosure that the vehicle comprises a Toro Sand Pro® bunker rake. See paragraph 22 of the application. The characteristics of Toro Sand Pro® bunker rakes are well known in the art.

To reject claim 12, the Examiner imports a teaching of a spring biased blade from the snow plow art and asserts that it would have been obvious to add such a spring to the very different blade of this invention. The problem of preventing damage to a snow blade, which might strike various obstructions on or along a roadway, is not a problem faced by a blade used to groom sand in a sand trap or bunker. There are no similar obstructions or shock producing obstacles in a trap or bunker entirely filled with sand. There is nothing that the blade could strike in a sand trap or bunker which would pose any substantial risk of damage to a blade used to push sand.

In the same fashion, the problem faced by the blade of this invention, how to let it automatically change its grading effectiveness without having to vertically adjust it up and down, is not one faced by a snow plow. One would not want a snow plow blade to change its angle of attack as it is pushing snow because that would leave the plowed surface covered with lumps or hillocks of snow every time the bottom of the blade pivoted up. One wants a snow plow blade to clean down to the surface.

Curtis does not teach that the purpose of his springs is to permit an automatic change in effectiveness in the action of the blade. Indeed, how could he? That is something that would probably desirably be avoided in a snow plow blade. He only teaches that the springs permit the blade to "trip over obstacles".

It is well settled that **the references themselves must teach the desirability of the combination or provide the**

motivation for one skilled in the art to make the combination. In this case, they manifestly do not. Because of the disconnect between the types of problems being faced by the two different arts, i.e. how to change grading effectiveness in the sand trap grooming art versus how to prevent damage to a snow plow blade, there would be no reason or motivation for one skilled in the art to reach out and pluck a spring out of a snow plow blade and use it in the very different vehicle and on the very different blade now set forth in claim 12.

Accordingly, the Examiner's combination of references used to reject claim 12 is improper due to a lack of a reason or motivation expressed somewhere in the references themselves for making the combination. The Examiner's rejection of claim 12 should be withdrawn.

Independent Claim 24

The vehicle of the invention ~~at issue~~ in amended claim 24 is a three wheeled vehicle in which the three wheels are arranged in a tricycle configuration. The vehicle is very versatile because quick attachments are mounted to the front and rear of the frame even though a steerable front wheel is located on the front of the frame. The front quick attachment is conveniently located ahead of the steerable front wheel. The quick attachments are of like kind and size so that certain implements, such as a blower, can be interchangeably used on both the front and the rear. Such a combination is not shown or made obvious in view of the prior art.

The Examiner's prior rejection of independent claim 24 is also respectfully traversed.

The Examiner has improperly relied upon circular reasoning in the rejection of claim 24. Godberson discloses a

single quick attachment mounted only on the rear of the tractor. The Examiner first asserts in combining Godberson and Smith that it would have been obvious to move all of Godberson's structure to the front as taught by Smith. But, even if we accept this for the sake of argument, this is not enough to reject claim 24. So, the Examiner then asserts that it would have been obvious to duplicate the quick attachment and put it back on the rear because that's where Godberson had it in the first place, namely before the Examiner moved it to the front.

The Examiner cannot have it both ways. The Examiner cannot say that one could take the quick attachment from the rear of Godberson and move it to the front and then use Godberson himself to justify adding another quick attachment back on the rear. The fact is that Godberson never teaches having two quick attachments of like kind and size mounted on both ends of the vehicle simultaneously and neither does any other reference of record. It is improper to take Godberson's single quick attachment, move it to the front to meet the front mounted quick attachment limitation of claim 24, and then magically clone the attachment and use the original location of Godberson's single attachment to justify placing the second magically cloned attachment back at the rear.

Moreover, claim 24 has now been amended to require three wheels in a tricycle configuration with the first quick attachment being located ahead of the steerable front wheel. As noted in the traversal of the rejection of claim 1, Godberson's very large implement and linkage, with its two widely spaced lower arms 29 and top link 31, does not lend itself to being mounted ahead of a steerable front wheel. It would not be obvious to move Godberson's single quick attachment from the rear to the front because of this difficulty.

For all the reasons noted immediately above, claim 24 is allowable over Godberson and Smith and the Examiner's rejection based thereon should be withdrawn.

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Dependent Claim 27


New claim 27 adds the further limitation that the first quick attachment is carried on the pivotal front wheel support of the steerable front wheel. It would not be obvious to relocate Godberson's implement and linkage from the rear and place it on a pivotal front wheel support, i.e. to modify the single rear location shown in Godberson, for all of the reasons stated in the traversal of the rejection of claim 1. Thus, new claim 27 is further allowable because of the recited mounting of the first quick attachment on the pivotal front wheel support.

Conclusion

It is respectfully requested that this application be allowed and sent to issue for the reasons noted above.

Respectfully presented,

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